

Matheson 8800 Series

0.5% Accuracy, SS Pressure Sensor

APPLICATIONS

The 8800 Series Stainless Steel Pressure Sensors are high accuracy, high purity pressure sensing devices, applicable to both non-corrosive and corrosive gases and fluids. Typical applications include remote pressure readout, low pressure alarm, electronically activated switch-over systems and automated pressure control. 8800 Series Pressure Sensors are easily connected to Matheson's 8571 or 8572 Digital Monitors/Controllers.

Other specific applications include process control, hydraulic control, water management, air conditioning, refrigeration, machine tools, robotics, environmental control, agricultural sprayers, and pneumatic control.

DESCRIPTION

The 8800 Series is a signal conditioned pressure transducer intended for a wide range of pressure sensing applications. The piezo-resistive sensor is coupled to the diaphragm through a silicon oil column to provide isolation from wetted surfaces. The stainless steel diaphragm is compatible with most fluids. No elastomers or O-rings are exposed to the media.

The sensor assembly and associated solid state electronics are enclosed in a cylindrical casing with a 1/2"-18 NPT 316 SS pressure fitting. Full calibration and temperature compensation are provided over a range of 0-50°C, along with unit-to-unit interchangeability. A three-wire connector with color coded, 18 gauge wire is included.



Model 8805 Pressure Sensor

DESIGN FEATURES

- Solid state reliability
- Rugged construction
- $\pm 0.5\%$ accuracy
- 316 SS wetted surfaces
- 1 to 6 VDC output
- Internal voltage regulation
- Reverse voltage protection
- 1/2" NPT 316 SS fitting
- Rugged, sealed connector
- Fully calibrated
- Temperature compensated
- Interchangeable
- 1 year warranty
- Cost effective
- Matheson Customer Support



MODELS

Range	Model #
0- 65 psia	8801
0- 115 psia	8805
0- 500 psia	8810
0-3000 psia	8816

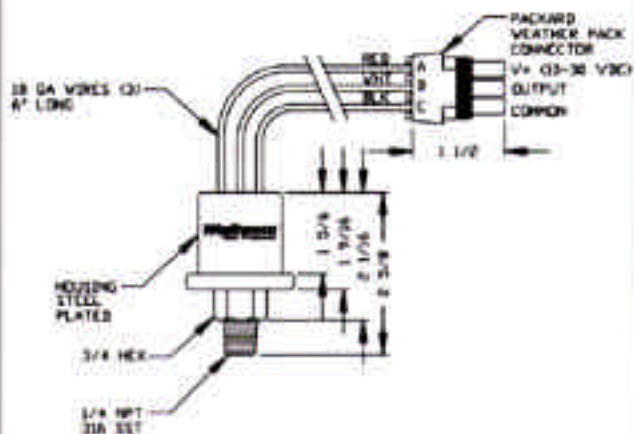
PERFORMANCE SPECIFICATIONS

Supply Voltage = 12 Vdc & Ambient Temperature = 25°C (Unless otherwise specified)

PARAMETER	MIN	TYP	MAX	UNITS	NOTES
Full-Scale Output Span	4.85	5.00	5.05	V	
Full Scale Output		5.00		V	
Zero Pressure Output	.35	1.00	1.05	V	2
Static Accuracy			.5	±%Span	3
Temperature Coefficient-Span			1.0	±%Span	1
Temperature Coefficient-Zero			1.0	±%Span	1
Supply Voltage	10	13	20	V	
Supply Current		2.5		mA	4
Line Regulation		.005		%V	
Output Resistance		100		mΩ	
Response Time		1		ms	
Output Noise		.5		mVp-P	
Output Load Resistance	2			KΩ	
Insulation Resistance (30V)	50			MΩ	
Pressure Overload			3X	Rated	5
Operating Temperature	-25°C to +55°C				
Storage Temperature	-40°C to +125°C				
Media	Compatible with 316 Stainless Steel				
Weight	8 oz. with Connector				6

Notes

1. Temperature Range: 0-50°C in reference to 25°C.
2. Measured at vacuum for absolute (A) and one standard atmosphere for sealed gauge (S).
3. Includes repeatability, pressure hysteresis and linearity (best fit straight line).
4. With no load at output.
5. 3X or 10,000 psi maximum, whichever is less.
6. Mating connector, for use with 18-20 gauge wire is included.



Notes

1. All dimensions in inches.
2. All dimensions reference only.
3. Unit supplied with female Packard Weather Connector Kit.
4. Inlet capped.